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Duke Energy Carolinas, LLC
Duke Energy Progress, LLC

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1 **REVISED** 2 **DIRECT TESTIMONY AND EXHIBITS** 3 **OF** 4 **BRIAN HORII** 5 ON BEHALF OF THE SOUTH CAROLINA OFFICE OF REGULATORY STAFF 6 7 **DOCKET NO. 2020-264-E** 8 **DOCKET NO. 2020-265-E** 9 IN RE: JOINT APPLICATION OF DUKE ENERGY CAROLINAS, LLC AND 10 DUKE ENERGY PROGRESS, LLC FOR APPROVAL OF SOLAR CHOICE 11 METERING TARIFFS PURSUANT TO S.C. CODE ANN. SECTION 58-40-20 12 PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND OCCUPATION. Q. 13 A. My name is Brian Horii. My business address is 44 Montgomery Street, San 14 Francisco, California 94104. I am a Senior Partner with Energy and Environmental Economics, Inc. ("E3"). Founded in 1989, E3 is an energy consulting firm with expertise 15 16 in helping utilities, regulators, policy makers, developers, and investors make the best 17 strategic decisions possible as they implement new public policies, respond to 18 technological advances, and address customers' changing expectations. 19 Q. PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE. 20 I have over thirty (30) years of experience in the energy industry. My areas of Α. 21 expertise include avoided costs, utility ratemaking, cost-effectiveness evaluations, 22 transmission and distribution planning, and distributed energy resources. Prior to joining

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The customer-generator would only receive a \$75 first year bill credit for the Winter BYOT program as opposed to the \$90 e-gift card for the non-solar participant, but the \$15 lower incentive for customer-generators is more than made up for by the \$3,240 upfront benefit (assuming a 9 kW-dc solar installation).

HOW DO THE EXTRA INCENTIVES PROVIDED TO WINTER BYOT PROGRAM CUSTOMER-GENERATORS COMPARE TO THE COST SAVINGS YOU ESTIMATED FOR CUSTOMER-GENERATORS REDUCING PEAK LOAD BECAUSE OF THE TOU AND CPP PRICES?

The Winter BYOT program payments over an assumed twenty-five (25) year life are essentially the same as the cost savings provided by customers reducing their winter peak demand. Taking the \$3,240 up front incentive plus the \$75 first year incentive, then adding an additional twenty-four (24) years of \$25 incentives equates to a total of \$3,915 in credits for the customer-generator. Dividing that by a twenty-five (25) year solar life yields an average credit of \$157 per year. That value is above, but comparable to, my estimated price response cost savings of \$143 per year for DEP and \$155 per year for DEC.

O. WHAT DOES THIS MEAN FOR YOUR ESTIMATE OF THE COST SHIFT?

Because the Winter BYOT program incentives are approximately the same as the cost savings from the customer-generator price response, there is basically no impact on my estimate of the cost shift.⁹ I present these Questions and Answers, however, to assure

⁹ For customer-generators who cannot participate in the Winter BYOT program because they do not have electric space and hot water heating, there is the possibility they could provide winter peak reductions without receiving the Winter BYOT program payments. However, given that those customers would not have both electric space and hot water heating, it is unlikely they would have peak loads near what I assumed in my cost reduction analysis, and could therefore not provide cost reductions near the values I presented.